What is claimed is:

1. A method for manufacturing an optical interference display cell on a substrate, the method comprising:

forming a first electrode on the substrate;

forming a sacrificial layer on the first electrode;

forming at least two openings in the sacrificial layer and the first electrode to define a position of the optical interference display cell;

forming a heat-resistant insulating inorganic supporter in each of the openings;

forming a second electrode on the sacrificial layer and the heat-resistant insulating inorganic supporter in each opening; and

removing the sacrificial layer by a remote plasma etching process.

2. The method for manufacturing an optical interference display cell according to claim 1, wherein the second electrode is a deformable electrode.

3. The method for manufacturing an optical interference display cell according to claim 1, wherein the second electrode further comprises at least one hole exposing the sacrificial layer thereunder.

4. The method for manufacturing an optical interference display cell according to claim 1, wherein a precursor of a remote plasma formed in the remote plasma etching process is an etching reagent having a fluorine group or a chlorine group.

5. The method for manufacturing an optical interference display cell according to claim 1, wherein a precursor of a remote plasma formed in the remote plasma etching process is selected from a group consisting of CF_4, BCl_3, NF_3, SF_6 and any combination thereof.

6. The method for manufacturing an optical interference display cell according to claim 1, wherein the sacrificial layer is made of a material selected from a group consisting of dielectric material, metal material and silicon material.

7. The method for manufacturing an optical interference display cell according to claim 1, wherein the heat-resistant insulating inorganic supporter is made of silicate or dielectric material.

8. The method for manufacturing an optical interference display cell according to claim 7, wherein the silicate is selected from a group consisting of spin-on-glass, phosphosilicate glass (PSG), borophosphosilicate glass (BPSG) and silicon oxide.

9. The method for manufacturing an optical interference display cell according to claim 7, wherein the dielectric material is selected from a group consisting of silicon oxide, silicon nitride, silicon oxynitride, and metal oxide.

10. The method for manufacturing an optical interference display cell according to claim 1, wherein the step of forming heat-resistant insulating inorganic supporter further comprises:

forming a heat-resistant insulating inorganic material layer in the openings and on the sacrificial layer; and

removing a portion of the heat-resistant insulating inorganic material layer above the sacrificial layer.

11. The method for manufacturing an optical interference display cell according to claim 10, wherein the heat-resistant insulating inorganic material layer is formed by a spin-coating process.

12. The method for manufacturing an optical interference display cell according to claim 10, wherein the heat-resistant insulating inorganic material layer is formed by a chemical vapor deposition (CVD) process.

13. The method for manufacturing an optical interference display cell according to claim 10, wherein the portion of the heat-resistant insulating inorganic material layer above the sacrificial layer is removed by a photolithographic etching process.

14. The method for manufacturing an optical interference display cell according to claim 10, wherein the portion of the heat-resistant insulating inorganic material layer above the sacrificial layer is removed by a chemical mechanical polishing process.

15. The method for manufacturing an optical interference display cell according to claim 1, wherein the remote plasma etching process is performed at a temperature between about 250℃ and about 500℃.

16. A method for manufacturing an optical interference display cell on a substrate, the method comprising:

forming a first electrode on the substrate;

forming a sacrificial layer on the first electrode;

forming at least two openings in the sacrificial layer and the first electrode to define a position of the optical interference display cell;

forming a heat-resistant insulating inorganic supporter in each of the openings;

forming a second electrode on the sacrificial layer and the heat-resistant insulating inorganic supporter in each opening; and

removing the sacrificial layer by a remote plasma etching process performed at a temperature between about 250℃ and about 500℃.

17. The method for manufacturing an optical interference display cell according to claim 16, wherein the second electrode is a deformable electrode.

18. The method for manufacturing an optical interference display cell according to claim 16, wherein the second electrode further comprises at least one hole exposing the sacrificial layer thereunder.

19. The method for manufacturing an optical interference display cell according to claim 16, wherein a precursor of a remote plasma formed in the remote plasma etching process is an etching reagent having a fluorine group or a chlorine group.

20. The method for manufacturing an optical interference display cell according to claim 16, wherein a precursor of a remote plasma formed in the remote plasma etching process is selected from a group consisting of CF_4, BCl_3, NF_3, SF_6 and any combination thereof.

21. The method for manufacturing an optical interference display cell according to claim 16, wherein the sacrificial layer is made of a material selected from a group consisting of dielectric material, metal material and silicon material.

22. The method for manufacturing an optical interference display cell according to claim 16, wherein the heat-resistant insulating inorganic supporter is made of silicate or dielectric material.

23. The method for manufacturing an optical interference display cell according to claim 22, wherein the silicate is selected from a group consisting of spin-on-glass, phosphosilicate glass (PSG), borophosphosilicate glass (BPSG) and silicon oxide.

24. The method for manufacturing an optical interference display cell according to claim 22, wherein the dielectric material is selected from a group consisting of silicon oxide, silicon nitride, silicon oxynitride, and metal oxide.

25. The method for manufacturing an optical interference display cell according to claim 16, wherein the step of forming heat-resistant insulating inorganic supporter further comprises:

forming a heat-resistant insulating inorganic material layer in the openings and on the sacrificial layer; and

removing a portion of the heat-resistant insulating inorganic material layer above the sacrificial layer.

26. The method for manufacturing an optical interference display cell according to claim 25, wherein the heat-resistant insulating inorganic material layer is formed by a spin-coating process.

27. The method for manufacturing an optical interference display cell according to claim 25, wherein the heat-resistant insulating inorganic material layer is formed by a chemical vapor deposition (CVD) process.

28. The method for manufacturing an optical interference display cell according to claim 25, wherein the portion of the heat-resistant insulating inorganic material layer above the sacrificial layer is removed by a photolithographic etching process.

29. The method for manufacturing an optical interference display cell according to claim 25, wherein the portion of the heat-resistant insulating inorganic material layer above the sacrificial layer is removed by a chemical mechanical polishing process.